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## NOTICE OF ALLOWANCE AND FEE(S) DUE

7590

03/01/2004

STALLMAN & POLLOCK LLP  
121 Spear Street, Suite 290  
San Francisco, CA 94105

EXAMINER

BARTH, VINCENT P

ART UNIT

PAPER NUMBER

2877

DATE MAILED: 03/01/2004

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/044,208	01/11/2002	Ilya Chizhov	TWI-14710	9755

TITLE OF INVENTION: SYSTEM AND METHOD FOR FINDING THE CENTER OF ROTATION OF AN R-THETA STAGE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1330	\$300	\$1630	06/01/2004

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. **PROSECUTION ON THE MERITS IS CLOSED.** THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN **THREE MONTHS** FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. **THIS STATUTORY PERIOD CANNOT BE EXTENDED.** SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

### HOW TO REPLY TO THIS NOTICE:

#### I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

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B. If the status is changed, pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above and notify the United States Patent and Trademark Office of the change in status, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check the box below and enclose the PUBLICATION FEE and 1/2 the ISSUE FEE shown above.

☐ Applicant claims SMALL ENTITY status.  
See 37 CFR 1.27.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER:** Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

# **PART B - FEE(S) TRANSMITTAL**

Complete and send this form, together with applicable fee(s), to: Mail

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**INSTRUCTIONS:** This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 4 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Legibly mark-up with any corrections or use Block 1)

7590 03/01/2004

**STALLMAN & POLLOCK LLP**  
121 Spear Street, Suite 290  
San Francisco, CA 94105

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

## **Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/044,208	01/11/2002	Ilya Chizhov	TWI-14710	9755

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nonprovisional	NO	\$1330	\$300	\$1630	06/01/2004

EXAMINER	ART UNIT	CLASS-SUBCLASS
BARTH, VINCENT P	2877	356-614000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).
- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.

2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1	_____
2	_____
3	_____

## **3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)**

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent); ☐ individual ☐ corporation or other private group entity ☐ government

## **4a. The following fee(s) are enclosed:**

- ☐ Issue Fee
- ☐ Publication Fee
- ☐ Advance Order - # of Copies \_\_\_\_\_

## **4b. Payment of Fee(s):**

- ☐ A check in the amount of the fee(s) is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number \_\_\_\_\_ (enclose an extra copy of this form).

Director for Patents is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above.

(Authorized Signature)	(Date)
<p>NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.</p> <p>This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Alexandria, Virginia 22313-1450.</p> <p>Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.</p>	

TRANSMIT THIS FORM WITH FEE(S)



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10/044,208	01/11/2002	Ilya Chizhov	TWI-14710	9755
7590 03/01/2004				
STALLMAN & POLLOCK LLP 121 Spear Street, Suite 290 San Francisco, CA 94105			EXAMINER BARTH, VINCENT P	
			ART UNIT 2877	PAPER NUMBER
DATE MAILED: 03/01/2004				

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 225 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 225 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) system (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (703) 305-1383. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/044,208	CHIZHOV ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Vincent P. Barth	2877	AW

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment dated 26 Jan. 2004.
2. ☒ The allowed claim(s) is/are 1-21.
3. ☒ The drawings filed on 11 January 2001 and 26 January 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |

## **DETAILED ACTION**

### ***Preliminary Comments***

1. Applicants' Amendments dated 26 January 2004 have placed the Application in a condition for allowance as written. Moreover, the amendments to the Drawings submitted therewith have been accepted, and provide clearer illustrations of the invention, without the introduction of new matter. In this connection, the objections to the Drawings set forth in the previous Office Action are withdrawn. Applicants' amendment to the Specification merely corrects a typographical error, and does not introduce new matter. Accordingly, the following represents a reasoned statement for allowability.

### ***Allowable Subject Matter***

2. Claims 1-21 are allowable, since the prior art references, either considered alone or in combination, do not disclose or render obvious the limitations set forth therein.

3. Referring to Claim 1, the prior art references, either considered alone or in combination, do not disclose or render obvious the limitations whereby an inspection system for samples comprises a polar coordinate stage having a chuck and rack wherein the chuck can be rotated about a center of rotation, an optical imaging system having a field of view, a processor which uses first information to determine the offset from the center of the field of view to the center of the rotation of the polar coordinate stage wherein the first information is used to determine a location of a site on a sample, in combination with the remaining limitations in the claim.

Claims 2-5 are allowable based on their dependency upon the claim from which each is

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dependent. Referring to Claim 7, the prior art references, either considered alone or in combination, do not disclose or render obvious the limitations whereby, in an inspection system for samples comprising a polar coordinate stage having a chuck, a method for determining an offset between a center of rotation of a polar coordinate stage and the center of the field of view of an imaging system comprises moving the chuck to a first distance such that the first site is in the field of view, rotating the chuck 180 degrees and moving the chuck twice the first distance such that the chuck is in a second position, and adjusting the chuck such that the chuck is in a third position which where the first site is positioned in the field of view, in combination with the remaining limitations in the claim. Claims 8-11 are allowable based on their dependency upon the claim from which each is dependent. Referring to Claim 12, the prior art references, either considered alone or in combination, do not disclose or render obvious the limitations whereby, in an inspection system for samples having an imaging system with a field of view and a stage with a chuck, a method for determining an offset between a center of rotation of the stage and the center of the field of view comprises moving the chuck to a first distance such that the first site is in the field of view, positioning the chuck in a second position such that the first site is positioned in the field of view, determining the difference between the first position and the second position, and using the difference between the first position and the second position to calculate the offset between the center of rotation of the stage and the field of view, in combination with the remaining limitations in the claim. Claims 13-18 are allowable based on their dependency upon the claim from which each is dependent. Referring to Claim 19, the prior art references, either considered alone or in combination, do not disclose or render obvious the limitations whereby an inspection system for samples comprises a stage having a chuck coupled

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to a track wherein the chuck can be rotated about a center of rotation, an optical imaging system having a field of view, a processor which controls the position of the chuck relative to the track and uses first information corresponding to an offset between the center of the field of view to the center of the rotation to determine a location of a site on a wafer, in combination with the remaining limitations in the claim. Referring to Claim 20, the prior art references, either considered alone or in combination, do not disclose or render obvious the limitations whereby, in an inspection system having a stage with a center of rotation and an imaging system with a field of view, a method for determining a location of a site on a wafer, the method comprising establishing a stage home position, using a processor to control the position of the stage, and using the offset between the center of the field of view and the center of the rotation to determine a location of a site relative to the stage home position, in combination with the remaining limitations in the claim. Referring to Claim 21, the prior art references, either considered alone or in combination, do not disclose or render obvious the limitations whereby, in an inspection system having a processor and a stage including a chuck, a method for determining the offset between the center of the field of view and the center of the rotation comprising moving a chuck to a first position such that the sample is in the field of view, moving the chuck to a second position where the first site is in the field of view, using the difference between the second position and a third position 180 degrees from the first position and moved twice the first distance to determine the offset.

*Comments*

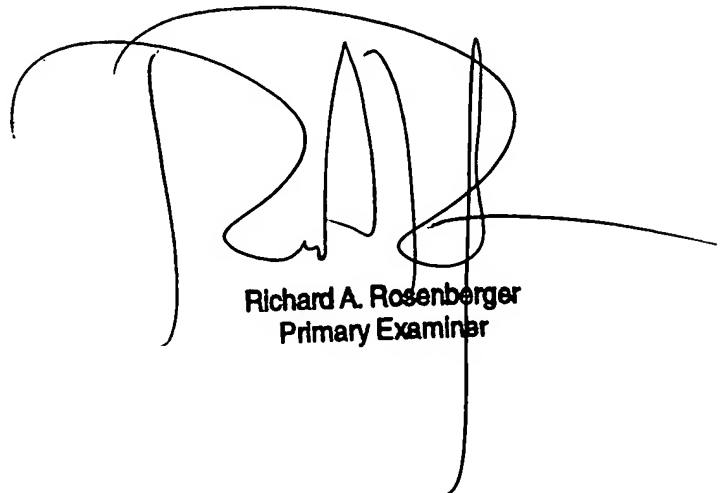
4. Applicants' amendments of Claims 1, 7, 12 and 19-21 to clarify the relationship of the center of the field of view to the remaining limitations of each claim has obviated any rejections under §112 second paragraph. Moreover, the Remarks in the Amendment dated 26 January 2004 served to provide the basis for amendments. In particular, it is now clear that the offset in the instant invention is determined relative to a point, which point is the center of the field of view (see Amendment, pg. 14, first paragraph). Accordingly, the rejections of Claims 1, 7, 12 and 19-21, under §112 second paragraph, as well as the rejections inherited by the dependent claims, are withdrawn.

5. The previous Office Action quoted a passage from a reference found in Applicants' IDS, citing the column and line numbers, but which omitted the patent number. Applicants correctly identified said passage as that found in Buchanan, et al., U.S. Pat. No. 6,320,609 (20 Nov. 2001), at column 8, lines 17-19. The Examiner appreciates Applicants efforts in this regard. Moreover, the Examiner has reviewed the portion of the Buchanan reference cited by Applicants in the Remarks to the Amendment dated 26 January 2004, and finds that the reference does not form the basis of any rejections of the instant claims as written.



***CONCLUSION***

6. Applicants' Claims 1-21 are allowed based on the reasons set forth above.
7. Any inquiries concerning this communication from the Examiner should be directed to Vincent P. Barth, whose telephone number is 571-272-2410, and who may be ordinarily reached from 9:00 a.m. to 5:30 p.m., Monday through Friday. The official fax number for communications to the group is 703-872-9306.
8. If attempts to reach the Examiner prove unsuccessful, the Examiner's supervisor is Frank G. Font, who may be reached at 571-272-2415.
9. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1782.



Richard A. Rosenberger  
Primary Examiner